ABBREVIATIONS

&	AND	I.D.	INSIDE DIAMETER/ DIMENSION
∠	ANGLE	IN.	INCH
@	AT	INCL.	INCLUDE(D)
℄	CENTERLINE	INSUL.	INSULATION
⊏	CHANNEL	INT.	INTERIOR
ø	DIAMETER OR ROUND	INV.	INVERT
⊥	PERPENDICULAR		
#	NUMBER OR POUND	JAN.	JANITOR
		JST.	JOIST
ABV.	ABOVE	JT.	JOINT
ACOUST.	ACOUSTICAL		
A.C.T.	ACOUSTIC CEILING TILE		
A.D.	AREA DRAIN	K.P.	KICK PLATE
A.F.F.	ABOVE FINISHED FLOOR	KO.	KNOCKOUT
ADJ.	ADJUSTABLE		
AGG.	AGGREGATE	L.	LENGTH
ALUM.	ALUMINUM	LAB.	LABORATORY
A.P.	ACCESS PANEL	LAM.	LAMINATE
APPROX.	APPROXIMATE	LBL.	LABEL
ANCH.	ANCHOR	L.P.	LOW POINT
ARCH.	ARCHITECTURAL	LT.	LIGHT
AUTO.	AUTOMATIC		
		MATL.	MATERIAL
BD.	BOARD	MAS.	MASONRY
BLDG.	BUILDING	MAX.	MAXIMUM
BLK.	BLOCK	MTL.	METAL
BM.	BEAM	MFR.	MANUFACTURER
BOT.	BOTTOM	MIN.	MINIMUM
BRKT.	BRACKET	MISC.	MISCELLANEOUS
BEL.	BELOW	MTD.	MOUNTED
CAB.	CABINET	N.	NORTH
CEM.	CEMENT	N.I.C.	NOT IN CONTRACT
CER.	CERAMIC	NO.	NUMBER
C.G.	CORNER GUARD	N.T.S.	NOT TO SCALE
C.J.	CONTROL JOINT		
C.T.	CERAMIC TILE	OA.	OVERALL
CLG.	CEILING	O.C.	ON CENTER
CL.	CLOSET	O.D.	OUTSIDE DIAMETER/ DIMENSION
C.M.U.	CONCRETE MASONRY UNIT		
CONC.	CONCRETE	OFF.	OFFICE
CONN.	CONNECTION	OPP. HND.	OPPOSITE HAND
CONSTR.	CONSTRUCTION	OPNG.	OPENING
CONTR.	CONTRACTOR	OPP.	OPPOSITE
CONT.	CONTINUOUS	O.W.J.	OPEN WEB JOIST
CORR.	CORRIDOR	O.H.	OVERHEAD
CPT.	CARPET		
CNTR.	COUNTER	PL.	PLATE
CTSK.	COUNTERSUNK	P. LAM.	PLASTIC LAMINATE
		PLAST.	PLASTER
DBL.	DOUBLE	PWD.	PLYWOOD
DEPT.	DEPARTMENT	PLBG.	PLUMBING
DET.	DETAIL	PR.	PAIR
D.F.	DRINKING FOUNTAIN	POL.	POLISHED
DIA.	DIAMETER	PT.	POINT
DIM.	DIMENSION	PTN.	PARTITION
DISP.	DISPENSER		
DMT.	DEMOUNTABLE	R.	RISER
DN.	DOWN	RAD.	RADIUS
D.O.	DOOR OPENING	R.D.	ROOF DRAIN
D.P.	DAMPPROOFING	REF.	REFERENCE
DR.	DOOR	REFR.	REFRIGERATOR
DWG.	DRAWING	REINF.	REINFORCED
DWGS.	DRAWINGS	REQ.	REQUIRED
DWR.	DRAWER	REV.	REVISION
		RESIL.	RESILIENT
EA.	EACH	RFL.	REFLECTED
EXP. JT.	EXPANSION JOINT	REGTR.	REGISTER
EL.	ELEVATION	RM.	ROOM
ELEC.	ELECTRICAL	R.O.	ROUGH OPENING
ELEV.	ELEVATOR		
EMER.	EMERGENCY	S.	SOUTH
ENCL.	ENCLOSURE	S.C.	SOLID CORE
EQ.	EQUAL	SCHED.	SCHEDULE
EQPT.	EQUIPMENT	SECT.	SECTION
E.W.C.	ELECTRICAL WATER COOLER	SPKL.	SPRINKLER HEAD
EXP.	EXPANSION	SHT.	SHEET
EXPO.	EXPOSED	SIM.	SIMILAR
EXIST.	EXISTING	SAN.	SANITARY
EXT.	EXTERIOR	SPEC.	SPECIFICATION
		SPKR.	SPEAKER
F.A.	FIRE ALARM	SQ.	SQUARE
F.D.	FLOOR DRAIN	S. SINK	SERVICE SINK
FDN.	FOUNDATION	STA.	STATION
F.E.	FIRE EXTINGUISHER	STD.	STANDARD
F.E.C.	FIRE EXTINGUISHER CABINET	STL.	STEEL
F.H.	FLAT HEAD	S.F.	SQUARE FEET
F.H.C.	FIRE HOSE CABINET	S.S.	STAINLESS STEEL
FIN.	FINISH	STOR.	STORAGE
FL.	FLOOR	STRUCT.	STRUCTURAL
FLASH.	FLASHING	SUSP.	SUSPENDED
FLUOR.	FLUORESCENT	SYS.	SYSTEM
F.O.S.	FACE OF STUD		
(FPRF.	FIREPROOF(ING)	TEL.	TELEPHONE
FR.	FRAME	TEMP.	TEMPERED
F.S.	FULL SIZE	THK.	THICK
FT.	FOOT OR FEET	T.O. SLAB	TOP OF SLAB
FTG.	FOOTING	T.O.W.	TOP OF WALL
FURR.	FURRING	TYP.	TYPICAL
FUT.	FUTURE		
		UNFIN.	UNFINISHED
G.C.	GENERAL CONTRACTOR	U.O.N.	UNLESS OTHERWISE NOTED
GA.	GAUGE		
GALV.	GALVANIZED	V.B.	VAPOR BARRIER
GL.	GLASS	V.C.T.	VINYL COMPOSITION TILE
GND.	GROUND	VERT.	VERTICAL
GR.	GRADE	VEST.	VESTIBULE
GYP.BD.	GYPSUM WALLBOARD	V.I.F.	VERIFY IN FIELD
H.	HIGH		
H.C.	HOLLOW CORE	W/	WITH
HD.	HEAD	WD.	WOOD
HDW.	HARDWARE	W/O.	WITHOUT
HT.	HEIGHT	W.M.	WIRE MESH
H.M.	HOLLOW METAL	WP.	WORKING POINT
HORIZ.	HORIZONTAL		
H.P.	HIGH POINT		
HR.	HOUR		
H.V.A.C.	HEATING,VENTILATING, AIR CONDITIONING		

SYMBOL KEY

- ELEVATION MARK: ELEVATION NUMBER (A / A2-01)
- SHEET WHERE ELEVATION IS LOCATED
- SECTION MARK: SECTION NUMBER (1 / A2-01)
- SHEET WHERE SECTION IS LOCATED
- COLUMN NUMBER (E10 / 21.6)
- DRAWING TITLE: DRAWING NUMBER (1 DRAWING NAME)
- GRAPHIC SCALE (1" 4" 0 4' 8')
- TARGET MARK: ELEVATION OR WORKING POINT REFERENCE
- DETAIL MARK: DRAWING NUMBER (1 / A2-01)
- SHEET NUMBER WHERE DETAIL IS LOCATED
- DETAIL MARK: WALL TYPE (4)
- DOOR NUMBER (201)
- ROOM NUMBER [201]
- EXISTING CONSTRUCTION
- EXISTING TO BE REMOVED

MATERIALS LEGEND

- REINFORCED CONCRETE
- GYPSUM BOARD
- PLYWOOD
- STEEL
- BATT INSULATION
- RIGID INSULATION
- PORTLAND CEMENT MORTAR
- CONCRETE MASONRY

GENERAL NOTES:

1. The Contractor shall do all work in accordance with the Building Code of the City of New York and the requirements of the Americans with Disabilities Act (ADA), and rules, regulations and other local codes having jurisdiction and shall pay all costs and fees for the same.
2. Any construction signs shall be submitted in detail and be approved by the engineers prior to installation.
3. All work materials and assemblies shall conform to the Building Code of the City of New York, National Fire Protection Association and Port Authority requirements.
4. Obtain from the Port Authority of New York and New Jersey its requirements for special permit applications and be responsible for securing these permits before commencement of the respective work.
5. Welding equipment, open flame devices or "dangerous" equipment used in construction must have a permit.
6. The Contractor shall ensure that the general condition of the work site during construction will not interfere with ongoing tenant operations.
7. All work shall be performed by Contractors licensed in their trade.
8. The drawings are not to be scaled. Dimensions for removals shall be coordinated with architectural, structural, mechanical, electrical, plumbing and fire protection requirements.
9. The Contractor shall be responsible for replacing and/or repairing any equipment, materials, utilities, building/structure, etc. damaged during the course of work at no additional cost to the owner.
10. The Contractor shall assure that no exits within the building are obstructed, that safety barriers are established to prevent accidental or unauthorized access, and that work areas are kept neat, clean and safe.
11. Lighting fixtures with ballasts shall be assumed to be PCB contaminated and shall be disposed of according to NYC regulation for such; excepting lighting fixtures labeled as "not containing PCB". REMOVAL AND DISPOSAL OF PCB MUST BE PERFORMED BY LICENSED NYC/NYS CONTRACTOR.
12. The Contractor shall protect the public at all times from any danger from the Contractor's operations.

BUILDING CODE ANALYSIS:

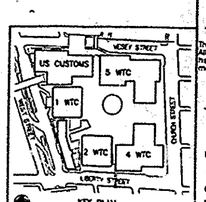
APPLICABLE CODE: BUILDING CODE OF THE CITY OF NEW YORK

FUEL OIL ROOM (LOCATED AT THE B2 LEVEL)

CONSTRUCTION CLASSIFICATION:	CLASS 1A SPRINKLERED (TABLE 4-2)
OCCUPANCY GROUP:	B-1 STORAGE (SECTION 27-246)
PERMITTED AREA:	NO LIMIT (TABLE 4-2)
NUMBER OF OCCUPANTS:	0
SEPARATION BETWEEN OCCUPANCIES:	3 HOUR FIRE DIVISION (TABLE 5-2)
REQUIRED FIRE RESISTANCE RATINGS:	WALLS: 3 HOURS DOORS: 3 HOURS ROOF: 3 HOURS STRUCTURAL MEMBERS: 3 HOURS

GENERATOR BULKHEAD - (EQUIPMENT ENCLOSURE LOCATED ON THE ROOF OF 5 WORLD TRADE CENTER)

REQUIRED FIRE RESISTANCE RATINGS OF EXTENSION OF EXISTING BUILDING:	EQUIPMENT ENCLOSURE FLOOR CONSTRUCTION INCLUDING BEAMS: 3 HOURS COLUMNS SUPPORTING EQUIPMENT ENCLOSURE FLOOR: 3 HOURS SHAFT BETWEEN EXISTING ROOF & EQUIPMENT ENCLOSURE FLOOR : 3 HOURS



Sheet 5 of 100.110

THE PORT AUTHORITY OF NY & NJ

ORIGINAL SIGNED & SEALED BY: N.Y. P.E. (OR R.A.)

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THE OFFICE OF DAVID ELLIOT LEBOWITZ PC
ARCHITECTS & PLANNERS
[illegible]

LESLIE E ROBERTSON ASSOCIATES, R.L.L.P.
CONSULTING STRUCTURAL ENGINEERS
[illegible]

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF ONE OF THE CONTRACT DRAWINGS, OR SUBSTITUTED ALPART OF CONTRACT NO. WTC-945.071 IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT THE TIME THE SAID CONTRACT WAS EXECUTED BY THE PARTIES.

DATE 1/16/98 Geoffrey A. Holden SPEC. WRITER

DATE 1/10/98 P.K. Loring ENGINEER OF DESIGN

No.	Date	Revision	Approved
	11/17/97	ISSUED FOR BID	

Engineering Department
Design Division

The World Trade Center

Title

STANDBY POWER
5 WORLD TRADE CENTER

ARCHITECTURAL

SYMBOL KEY, SYMBOL LIST & GENERAL NOTES

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

Designed by	Drawn by	JRA Job No.
G.B.	D.J.F.	

Date 11/17/97 Scale

Contract Number WTC-945.071

Drawing Number A0-01